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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/000,122	10/31/2001	Bindiganavale S. Nataraj	N1-P109	8987

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SHEMWELL GREGORY & COURTNEY LLP
4880 STEVENS CREEK BOULEVARD
SUITE 201
SAN JOSE, CA 95129

EXAMINER

ELMORE, REBA I

ART UNIT	PAPER NUMBER
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2187

DATE MAILED: 07/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/000,122

Applicant(s)

NATARAJ ET AL.

Examiner

Reba I. Elmore

Art Unit

2187

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 April 2002 and 11 June 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-81 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-81 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>4 and 5</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-81 are presented for examination.

Specification

2. The application numbers cited on page 2 of the disclosure should be updated to show patent numbers where appropriate.
3. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Double Patenting

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims 1-81 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-129 of U.S. Patent No. 6,697,276.

Although the conflicting claims are not identical, they are not patentably distinct from each other because:

10/000122

Claim 1: A content addressable memory (CAM) device comprising:

A CAM array having a plurality of rows of CAM cells including a plurality of row segments and being adapted to store a data word that spans a selectable number of row segments:

a priority index table coupled to the plurality of rows of CAM cells and adapted to store a plurality of priority numbers, each priority number being indicative of a priority of a corresponding data word stored in the CAM array.

6,697,276

Claim 59: An integrated circuit comprising:

a content addressable memory (CAM) to store a plurality of inserted indices, the CAM being adapted to generate an indication of one of the inserted indices that matches the search index

an index generator to generate a search index based on a search value

a data memory to store a plurality of data values and coupled to receive the indication from the CAM, the data memory being adapted to output according to the indication, a first data value of the plurality of data values; and,

a compare circuit to compare the first data value with the search value and to generate a match signal indicative of whether the first data value matches the search value.

6. Claims 1-81 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-32 of U.S. Patent No. 6,700,809.

Although the conflicting claims are not identical, they are not patentably distinct from each other because:

10/000122**6,700,809**

Claim 1: A content addressable memory (CAM) device comprising:

a CAM array having a plurality of rows of CAM cells including a plurality of row segments and being adapted to store a data word that spans a selectable number of row segments:

a priority index table coupled to the plurality of rows of CAM cells and adapted to store a plurality of priority numbers, each priority number being indicative of a priority of a corresponding data word stored in the CAM array.

Claim 19: A content addressable memory (CAM) comprising:

a plurality of storage arrays including an overflow storage array and a primary storage array;

a control circuit coupled to the plurality of storage arrays, the control circuit being adapted to read a first value from the overflow storage array:

an index generator coupled to receive the first value from control circuit being adapted to generate an index to a storage location within the primary array based on the first value; and,

a write circuit coupled to receive the first value from the control circuit and adapted to store the the first value in the storage location indicated by the index.

7. Claims 1-81 provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1-39 of copending Application No. 2002/0129198. Although the conflicting claims are not identical, they are not patentably distinct from each other because:

10/000122

Claim 1: A content addressable memory (CAM) device comprising:

a CAM array having a plurality of rows of CAM cells including a plurality of row segments and being adapted to store a data word that spans

2002/0129198

Claim 1: A content addressable memory (CAM) device comprising:

a plurality of CAM blocks, each CAM block having an array of CAM cells to store data words and an array

a selectable number of row segments:

of priority number storage circuits to store priority numbers, each priority number indicating a priority of a respective one of the data words relative to others of the data words; and,

a block control circuit having an input to receive a class code and circuitry to output a plurality of select signals to the plurality of CAM blocks, each select signal to selectively disable a respective one of the plurality of CAM blocks from participating in a compare operation according to the class code.

a priority index table coupled to the plurality of rows of CAM cells and adapted to store a plurality of priority numbers, each priority number being indicative of a priority of a corresponding data word stored in the CAM array.

Claim 16: The CAM device of claim 1 further comprising a priority encoder circuit to generate an index indicative of a storage location within one of the plurality of CAM blocks not disabled from participating in the compare operation.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Allowable Subject Matter

8. The following is a statement of reasons for the indication of allowable subject matter:

the prior art of record does not show a CAM array which has a programmable word width in conjunction with a priority index table for storing a plurality of priority numbers with each priority number being indicative of a priority associated with a corresponding data word stored in the CAM array.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Reba I. Elmore, whose telephone number is (703) 305-9706. The examiner can normally be reached on M-TH from 7:30am to 6:00pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the art unit supervisor for AU 2187, Donald Sparks, can be reached for general questions concerning this application at (703) 308-1756. Additionally, the official fax phone number for the art unit is (703) 746-7239.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Tech Center receptionist whose telephone number is (703) 305-3800/4700.



Reba I. Elmore
Primary Patent Examiner
Art Unit 2187